

REMARKS

Claims 1, 3, and 18 have been amended. Claims 2, 17, and 23-27 have been canceled. Claims 36-62 were previously canceled. Claims 63-70 have been added. Thus, claims 1, 3-16, 18-22, 28-35, and 63-70 are pending. Reconsideration and withdrawal of all outstanding rejections are respectfully requested in light of the foregoing amendments and the following remarks.

Claims 1, 17, 28, 30, 33, 34, and 35 stand rejected under 35 U.S.C. §102(e) as being anticipated by Barton et al. (U.S. Pat. No. 6,744,109) ("Barton"). Applicants respectfully traverse the rejection.

The present invention provides a die package having an adhesive flow restriction area. The adhesive flow restriction area impedes the flow of an adhesive material that is used in bonding a transparent element to a die to form the package. Independent claim 1 recites, *inter alia*, "a die . . . and a transparent element adhesively attached to said die by an adhesive material and having a first surface facing a first surface of said die, said first surface of said transparent element having at least one adhesive flow restriction area for impeding flow of an adhesive across said first surface of said die." Barton does not anticipate the invention because Barton does not teach, or even suggest, all of the elements recited by claim 1.

Barton fails to teach or suggest "a transparent element. . .having at least one adhesive flow restricting area for impeding flow of an adhesive" on a first side of the transparent element. Unlike the claimed invention, Barton relates to forming a standoff made of photoresist on a substrate. "The standoff maintains a gap over the micro-lenses," that are formed over a pixel array. Abstract. The standoff receives an adhesive material for bonding to a transparent cover. Barton also teaches formation of a barrier next to the standoff. The barrier (330 on FIG. 3a) is a protuberance extending from the

substrate. In this embodiment, Barton teaches that the transparent material 240 has a flat surface, which could not be interpreted as “having at least one adhesive flow restriction area.”

In another embodiment, Barton teaches forming grooves (720) in the transparent cover 240 (FIG. 7). However, as explained, these grooves are “to provide additional tolerance. . . to expose underlying electrical contacts,” not to “impede the flow of adhesive across the surface of the die, as in the claimed invention. Col. 7, lines 11-14. In fact, Barton teaches that each groove 720 “overlies circuit area containing electrical contacts that must be accessible for use.” Col. 7, lines 55-57. Based upon this teaching, it would be impossible for the grooves 720 to receive flowing adhesive, as to impede the flow, without the underlying electrical contacts also receiving the adhesive.

For at least these reasons, the teachings of Barton do not anticipate the claimed invention as recited by claim 1. Claims 3-16 and 28-35 depend from claim 1 and contain all of the limitations recited therein. Accordingly, these claims are also submitted to be allowable.

Amended independent claim 18 recites an imaging device comprising: “a die. . . and a transparent element adhesively attached to said die . . . [a] first surface of said die having at least one adhesive flow restriction area for impeding flow of an adhesive across said first surface of said die, wherein said adhesive flow restriction area comprises at least one trench.”

Barton does not teach or suggest an “adhesive flow restriction area. . . [on] said first surface of said die, wherein said adhesive flow restriction area comprises at least one trench.” Barton does not teach or suggest a trench on a surface of a die for restricting the flow of adhesive material.

For at least these reasons, claim 18 is allowable. Claims 19-22 and 63-70 each depend from claim 18 and contain every limitation recited by claim 18. These claims are also submitted to be allowable.

Claims 2-16, 18-27, 29, 31, and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Tsai et al. (U.S. Patent No. 6,509,636) ("Tsai"), and Beyne et al. (U.S. Patent No. 6,566,745) ("Beyne"). Applicants respectfully traverse the rejection.

Even assuming, *arguendo*, that there was some objective motivation to combine the teachings of a standoff by Barton, with the teachings of a beveled groove encapsulate by Tsai, with the teachings of a hermetically sealed ball grid array device by Beyne, of which there is none, the combination of references still would not render obvious the claimed invention as recited by claims 2-16, 18-27, 29, 31, and 32.

For whatever Tsai and Beyne teach respectively regarding the shape of a trench and wire bonds and solder balls, the references do not cure the deficiencies of Barton discussed above. Specifically, for at least the reasons given in the Applicants' previous Amendment, filed December 17, 2004, neither Tsai nor Beyne teach or suggest the claimed "adhesive flow restriction area," as recited by each of the claims.

For at least these reasons, none of the references of record, whether considered alone or in combination, render obvious the claimed invention. Withdrawal of the rejection is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance. Favorable action on claims 1, 3-16, 18-22, 28-35, and 63-70 is solicited.

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